## ABSTRACT

- System for controlling the torsional stability of the drivetrain of a machine, in particular of a helicopter.
- The system (1) comprises a means (7) for acting on the speed of an engine (5) of the power train of the machine, a means (8) for measuring a speed NTL of rotation of the free turbine of the engine (5), a correction device (9) for correcting the measured speed NTL into a corrected value NTLcorr, a means (11) for determining a preset value NTLpres of the speed of rotation of the free turbine of the engine (5), and a a computation unit (12) for automatically computing, on the basis of the preset value NTLpres the corrected value of NTLcorr, operating commands which are applied automatically first means (7). The correction device (9) corrects the measured speed NTL so as to obtain a corrected value NTLcorr exhibiting, at least around the first torsional mode of the drivetrain, the same modulus and an opposite phase with respect to the preset value NTLpres.

Figure for the abstract: Fig. 1.